



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/527,326

10/31/2005

Herbert Wolter

060953-0136

2530

22428 7590 05/19/2009  
FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

HEINCER, LIAM J

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

05/19/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/527,326	<b>Applicant(s)</b> WOLTER ET AL.	
	<b>Examiner</b> Liam J. Heincer	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 19-29 is/are pending in the application.
- 4a) Of the above claim(s) 19-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/19/09</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 19, 2009 has been entered.

### ***Claim Objections***

Claim 16 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 16 requires {B} to be derived from a group of specific alcohols, esterified with acrylate groups. However, these compounds do not contain an amine or thiol groups. As claim 1 requires group {B} to be joined to the carboxyl group through a nitrogen or sulfur atom, these compounds cannot form the compound of claim 1. As such, claim 16 does not further limit the compound of claim 1.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

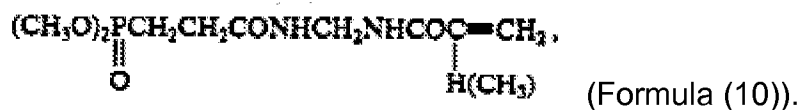
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Jäger et al. (US Pat. 4,066,597).

Art Unit: 1796

Considering Claims 1, 3, 5-12: Jäger et al. teaches a compound of the formula



Considering Claim 4: As substituents are optional in claim 1, they are still being treated as optional in the dependent claims.

Claims 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Jäger et al. (US Pat. 4,066,597).

Considering Claim 2: Jäger et al. teaches a compound of the formula



### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jäger et al. (US Pat. 4,066,597) as applied to claim 12 above, and further in view of Omura et al. (US Pat. 4,612,384).

Considering Claims 13 and 14: Jäger et al. teaches a compound of formula (I) as shown above.

Jäger et al. does not teach the (meth)acrylate groups as being attached through ester bonds. However, Omura et al. teaches using esters to connect (meth)acrylic acids to a phosphorous compound (6:7-39). Jäger et al. and Omura et al. are analogous art as they are concerned with the same field of endeavor, namely phosphorous compounds functionalized with (meth)acrylic acids. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the ester linkage of Omura et al. in the compound of Jäger et al., and the motivation to do so would have been, as Omura et al. suggests, ester linkages and amide linkages are functionally equivalent (6:7-39).

Claims 15, 16, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jäger et al. (US Pat. 4,066,597) in view of Omura et al. (US Pat. 4,612,384) as applied to claims 13 and 14 above, and further in view of Billington et al. (US Pat. 4,514,342).

Considering Claims 15, 16, and 29: Jäger et al. and Omura et al. collectively teach the compound of claims 13 and 14 as shown above.

Jäger et al. does not teach a polyesterified polyol. However, Billington et al. teaches the reaction of a polyhydric alcohol with at least four hydroxyl groups with at least three of the hydroxyl groups esterified with an acrylate (2:62-66 and 3:19-36) and a phosphorous containing compound (2:62-66). Billington et al. also teaches the polyhydric alcohol as being pentaerythritol (3:37-42). Jäger et al. and Billington et al. are analogous art as they are concerned with similar technical difficulties, namely phosphorous containing polymerizable (meth)acrylate groups. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the polyfunctional polyol of Billington et al. in the preparation of the compound of Jäger

Art Unit: 1796

et al. , and the motivation to do so would have been, as Billington et al. suggests, to improve the adhesion of the resultant polymer to the substrate (3:46-62).

### ***Response to Arguments***

Applicant's arguments filed March 19, 2009 regarding the restriction requirement have been fully considered but they are not persuasive, because:

The special technical feature is defined by the originally filed claims in light of the original specification. As the claims and specification do not suggest that the currently presented compound is the special technical feature of the invention, the lack of unity standard is still met. However, as the withdrawn claims are directed towards a method of making the elected a compound a rejoinder would be proper at the time the compound is found patentable, provided that the method claims have been amended to require the limitations of the elected invention. See MPEP § 821.04.

Applicant's arguments with respect to claims 1-16 and 29 have been considered but are moot in view of the new ground(s) of rejection.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/

Supervisory Patent Examiner, Art Unit 1796

LJH

April 23, 2009